Education Crisis, Workforce Preparedness, and COVID-19: Reflections and Recommendations

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ABSTRACT. This article explores the impact of COVID-19 on the higher education crisis and its implications for workforce preparedness and the future of work. It takes an integrative look at the evolving role of three primary actors involved in higher education: traditional universities, corporate universities, and educational technology companies, before, during, and after the pandemic. We conclude with recommendations for reframing discussions about higher education and workforce preparation to achieve a better balance between the workforce needs of the corporate world and those of society.

Introduction

> Whatever it is, coronavirus has made the mighty kneel and brought the world to a halt like nothing else could. Our minds are still racing back and forth, longing to return to "normality," trying to stitch our future to our past, and refusing to acknowledge the rupture. But the rupture exists. In the midst of this terrible despair, it offers us a chance to rethink the doomsday machine we have built for ourselves. Nothing could be worse than a return to normality. (Roy 2020)

As the second wave of the COVID-19 pandemic swept across the world in the last quarter of 2020, nearly 11 months after it began, most of us came to terms with the fact that the world as we had known it was forever changed. The course of where and how many conduct their

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work has been altered; brick and mortar institutions have dissolved into virtual spaces; and barricades have formed to block previously open borders between neighboring countries. Everything has changed, from the way we connect with one another, to how we wash our hands. At the onset of the pandemic, we saw an unprecedented number of people rendered unemployed, almost 40 million in the United States (Kelly 2020). For those who managed to keep their jobs, nearly 70 percent were transitioned to work from home (Brynjolfsson et al. 2020). Some believe that the pandemic is a "hinge event of our modern history, a moment that forever alters its course" (Zakaria 2020: 2). Others believe that what we are going through is temporary—once we have the vaccine, the world that is currently being stretched like a rubber band by the pandemic will revert to its original shape (Baldwin 2020). Regardless of the different viewpoints, it is difficult to deny that most aspects of our lives are in an altered state, some of them possibly forever.

In this article, we explore the impact of the pandemic on the looming crisis in higher education and workforce preparedness. Workforce preparedness is an outcome of higher education that impacts the current and future nature of work and education (Jackson et al. 2016). Even before the pandemic, industry leaders expressed concerns that those graduating from the educational system lacked the skills required by the labor market (Cummins et al. 2019). Although these concerns included recent graduates and new hires, many industry leaders believed the problem extended to their existing workforce as well, claiming that at least a quarter of their employees would need to be retrained or replaced due to advances in automation or digitization (Illanes et al. 2018).

Hoping to narrow the skills gap, investment in education continues to increase in both the formal university system and the corporate sector. Research shows that, by 2029, total U.S. spending on higher education (four-year college and up) will grow to $540 billion (in 2019 dollars), a 15 percent increase from 2019, while employee training (apprenticeships, certifications, and licenses), paid for by organizations through corporate universities, will grow to more than $1 trillion, up by over 30 percent from 2019 (Ip and Morenne 2020). Underpinning higher education and corporate universities is the educational technology (EdTech) sector, which also saw significant investments of billions of dollars in 2019 (Dua et al. 2020).

Given these changes, we look at the crisis in higher education from a broader level by including corporate universities and EdTech in addition to the traditional university system. We posit that instead of a siloed consideration of each actor—EdTech, corporate universities, and traditional universities—they should be looked upon as a collective unit. This integrated perspective will facilitate a holistic framing of the higher education crisis and help propose ideas for responding in a connected and congruent manner. The ultimate purpose of these actors is to ensure optimal workforce preparedness to address needs of the future workplaces; therefore, all three play a role in responding to the crisis in higher education. As we explore the issues and the actors involved, we attempt to answer the following questions: 1) What lessons are we learning about the higher education crisis during COVID-19? 2) How can we reimagine higher education to better prepare the workforce going forward?

The Pre-COVID-19 Context

Before COVID-19, discussions about workforce preparedness substantially focused on the future of work—the role of technology, automation, and digitization of information (Illanes et al. 2018). The effect of changing and advancing technologies, new ways of working, and recognition of different skills needed for the workforce going forward has already been a subject of intense debate in organizations and in higher education. In 2017, McKinsey predicted that an estimated 375 million workers, or 14 percent of the global workforce, would need to acquire new skills or switch occupations by 2030 (Manyika et al. 2017). More recently, McKinsey reported that 87 percent of executives surveyed complained about the skill gaps in the workforce, and less than half of them knew how to address the problem (Capozzi et al. 2020).

Rise of EdTech

Studying the future of work and predicting the necessary workforce changes is not new. Scholars have been raising concerns about the lack of adequate workforce preparation for decades (Handy 1984; Parker 1971). Karoly and Panis (2004) posit that if organizations are

to retain their competitive advantage, they will need to make substantial changes to their workforce due to technological advancements, demographic shifts, and globalization. Disappointingly, higher education appears slow in responding to the future of work advancement challenges, leading Sebastian Thrun, a former professor and founder of the online learning program Udacity, to remark: "Education is broken" (Wolfson 2013). Seeking to intertwine Silicon Valley technological expertise, several firms have turned their focus to leveraging technology to support education through an emerging EdTech industry. Investments in EdTech jumped from $2 billion in 2012 to $19 billion in 2019 (Dua et al. 2020).

Advances in EdTech have been progressing over the last 20 years, initially with important advances, such as e-learning and open educational resources (OER), followed by new technologies, such as learning management systems (LMS), blogs, video usage, and massive open online courses (MOOCs). In more recent years, learning analytics, digital badging, artificial intelligence (AI), and blockchain advancements have made their way into education as well (Weller 2018). Despite its growth in recent years, before the pandemic, EdTech was still considered an emerging industry with mixed results. For instance, MOOCs, one of the key foundations of EdTech, continue to show poor completion rates even after several years of offering accessible, low-cost, or, sometimes, free courses online. Even after leaders in higher education, such as MIT and Harvard, created the MOOC platform "edX," the perceived value of MOOCs has only slightly increased. In an empirical study of MOOC participants, only 3.13 percent acknowledged that they had completed their online courses in 2017–2018 (Lederman 2019). More recently, other criticisms highlighting the dark side of EdTech have surfaced: misinformation issues, data breaches, and online abuse, among others. These have poured cold water over the techno-optimism initially displayed. EdTech also receives criticism for often offering technical solutions without sound pedagogy, research, or best practices that are prevalent in traditional university systems (Hodges et al. 2020). EdTech is often criticized for having a commercial motive in which the monetization of educational data is of higher importance than actual education (Teräs et al. 2020). Despite these challenges, EdTech made an impact on education prior

to the pandemic, although many consider the impact less significant than what the industry promised (Weller 2018).

<center>*Corporate Universities and Workforce Capability Building*</center>

As organizations realized the competitive advantages that a better pre-pared workforce generated, they began to educate their employees through corporate universities and institutions (Renaud-Coulon 2008). At the turn of the 21st century, 80 percent of Fortune 500 companies already had a corporate university or were planning to build one (Nixon and Helms 2002). During the last decade, corporate invest-ment in workforce learning grew by 37 percent to $300 billion by 2019, of which roughly 40 percent—$120 billion—was spent on exter-nal vendors and the balance on internal resources (Christensen 2020), making organizations and, thereby, corporate universities, significant players in higher education.

Corporate universities come in all shapes and sizes. Some are small training departments, christened "universities" for impact, while others are semi-autonomous entities (Nixon and Helms 2002). In most cases, the term "university" is metaphorical, emphasizing the importance of learning initiatives and branding the organization's educational pro-grams with the intention of transplanting the university model and feel within the corporate organization (Maglione and Passiante 2009). Corporate universities are not new; General Motors had one as early as 1927. The growth spurt came in the 1980s and 1990s, with a total of about 2,400 corporate universities by the end of the last century (Nixon and Helms 2002), which suddenly jumped to 4,000 by 2010 (McAteer and Pino 2011).

Although they have different aims than traditional universities, cor-porate universities are considered a part of higher education (Cappiello and Pedrini 2017). We interpret the term "corporate universities" in the broadest sense, the lexicon being used interchangeably with de-partments, institutes, academies, or learning/training departments. In other words, we include any entity that serves or provides a teaching function to its employees focused on technical or soft skills improve-ment in our definition of a corporate university (Jarvis 2001). Some consider the rise of corporate universities as an acknowledgment of

the failure of the conventional higher education system and its inability to meet the expectations of a changing workforce, its slowness to adapt to technological changes, and its inability to fulfill the need for lifelong learning (Nixon and Helms 2002).

Corporate universities are not free from criticism. Perhaps the most telling data come from corporate CEOs themselves. Despite pouring money into learning and corporate universities, only 8 percent of the CEOs realized any business impact (Christensen 2020). Rhéaume and Gardoni (2015) attribute high failure rates of corporate universities to five main causes: 1) spending too much on infrastructure, 2) too much focus on upper management, 3) overspending on technology, incurring too much technical debt, 4) a lack of investment in developing internal teaching expertise, and 5) a lack of investment in curriculum development. Corporate universities are also vulnerable to the financial vicissitudes of the organization. Economic recessions in 2002–2003 and 2008–2009 led many organizations to reduce training-related expenditures (Ryan et al. 2015). However, with the right vision, mandate, and financial support, corporate universities can continue to play an important role, as long as workforce preparedness remains a prominent outcome of higher education (Agrawal et al. 2020).

Traditional Universities: Obsolete and Pricey?

Although EdTech and corporate universities have sizeable budgets, they pale in comparison to the $604 billion spent in the United States on higher education within a more traditional university system (Hussar et al. 2020: 197). This fact presents a problem, as O'Driscoll (2020) and others have pointed out. Although the nature of work has changed, the look and feel of the U.S. higher education system has remained relatively frozen in time: "It's easier to change the course of history than it is to change the history course" (Dua et al. 2020).

The premise that higher education is "broken" has been an enduring criticism for many decades (Freire [1968] 2018; Holt 1964; Illich 1971). In the United States after World War II, the government invested in higher education as a tool for economic development and the public good (Schultz 2020). When recession hit in the 1970s, governments cut funding to universities, and universities responded by

turning to business organizations for support. In return for investment, businesses demanded that universities place greater educational emphasis on job skills. Students, in turn, became "customers," and career placement, rather than a liberal education, became the ultimate goal of higher education (Schultz 2020).

While some argue that the quality of education has declined in recent decades, there is no denying that the cost of education has risen sharply. As of 2020, total student loan debt stood at $1.56 trillion for over 45 million students (Z. Friedman 2020). Furthermore, 43 percent of those with a bachelor's degree are underemployed in the first year following graduation (Ip and Morenne 2020). About 74 percent of parents prefer that their children work full-time jobs while enrolled in college (Ip and Morenne 2020). Only 60 percent of those who start college finish it in six years. The odds are even worse for minorities; only 40 percent of African Americans and 54 percent of Hispanics complete college within six years (Dua et al. 2020). College-for-all is an increasingly difficult proposition, and the system is stacked in favor of those who can afford it. For most college hopefuls, alternative solutions are sorely needed.

Higher education before COVID-19 was an unhealthy cocktail of complex dynamics. Colleges worried about survival; one in seven college presidents feared that his or her school may close or merge in the next five years (Zemsky et al. 2018). Meanwhile, corporations were doubling their investments in reskilling and upskilling to prepare their workforce for the future. PwC alone pledged an investment of $3 billion, while Accenture and AT&T pledged $1 billion each, all in 2019, before the pandemic (Ward 2020). EdTech tried to cash in on the gold rush in its own Silicon-Valley style, with mixed results, though with a lot of promise. Higher education was ripe for disruption before the pandemic.

Impact of COVID-19

There are decades when nothing happens, and then there are weeks when decades happen.

V. I. Lenin cited in Zakaria (2020: 2)

The COVID-19 pandemic accelerated the use and adoption of digital technology in the fields of higher education and workforce

preparation. The future of work is a multi-year journey, in which AI, robotics, and automation will replace several job activities currently executed by humans, who will increasingly need to upskill and reskill (Manyika et al. 2017). The immediate and distant future of education is similarly connected to the "digital everything" movement (Baldwin 2020).

The Pivot to Online Learning

What has COVID-induced digitization meant for higher education? The answer is a surge in the use and reliance on EdTech. EdTech has been the main vehicle for teaching, learning, and working as the world went virtual, seemingly overnight. Notwithstanding the undeniable benefits of EdTech under these circumstances, some researchers are skeptical (Williamson 2020). EdTech redefines, simplifies, and reduces learning so much that education ends up "fitting" into technology, not the other way around. Knox et al. (2020) posit that the advancement of EdTech marks a return to machine behaviorism. Data, rather than pedagogy, are often the center of EdTech. Quantifying the data resulting from learning, also known as datafication, is a business objective where data are used for driving competitive advantage, not educational benefit (Teräs et al. 2020).

Datafication also leads to the broader question of who owns the learning data: the student, the university, or the EdTech provider (Brougham and Prinsloo 2019)? Researchers and teachers in Europe are particularly sensitive to issues of privacy and data ownership (Lossec et al. 2020). Further, as the world of education rushed to seek help from EdTech, Lossec et al. (2020) wonder if we can really trust EdTech providers to decide on what "good" looks like in pedagogical approaches online? While it is still early, and there are only a few studies that evaluate EdTech, the jury is still out on whether this switch to tech-dependent education produces positive teaching and learning outcomes (Mseleku 2020).

The sudden push to "just get it online" is a perverse contradiction of the usual time, effort, and scrutiny required in designing and delivering a quality course (Hodges et al. 2020). There is a difference between a true online curriculum and an emergency remote teaching

response. Researchers and instructional designers have developed a body of work over the last few years that addresses a variety of remote learning solutions, including distance, distributed learning, blended, online, and mobile learning (Hodges et al. 2020). From this body of work, we propose that successful remote and online learning is predicated on careful and systematic instructional design, learner support, and provision of methods for a variety of interactions: between students and course content, from student to student, and from student to faculty (Means et al. 2014). Typical development of high-quality online content can take from six to nine months to create and most faculty need to teach the course two to three times to become proficient (Hodges et al. 2020). Thus, the online learning that is currently taking place at institutions of higher education may more appropriately be categorized as merely an emergency response—convenient but not an optimal experience.

Push Versus Pull in Organizations

The pandemic has instigated a metamorphosis in corporate universities and nontraditional higher educational learning departments as well. The accelerating shift towards reimagining the future of work has accelerated the need for, and investments in, capability building (Capozzi et al. 2020). Unlike previous recessions (in 2002–2003 and 2008–2009), most corporate leaders say that their companies have either increased their training investments or made no change, based on the conclusion that the best way to close capabilities gaps is through employee reskilling (Agrawal et al. 2020). Digital skills training (digital operations, technology/software, digital marketing, AI/data science) have emerged as the most important training areas for companies (SimpliLearn 2020). Nonetheless, there is a difference between what training organizations are pushing for (technical skills) and what the employees want to learn (soft skills). Of the top 20 courses on LinkedIn Learning, 12 are soft skills such as time management and emotional intelligence, and eight are technology skills such as Python coding and project management (Brodnitz 2020). Courses on happiness and well-being, such as those offered by Yale University professor Laurie Santos, are sought after by employees (Reese 2020).

Her podcast, "The Happiness Lab," on Apple has been downloaded 20 million times.

Herein lies the challenge for corporate universities—finding the balance between meeting the need to close the technical skills gap for the organization and meeting employees' needs for soft skills. IBM's Institute of Business Value study revealed that 74 percent of executives say that they are helping employees learn new skills, but only 38 percent of the employees agree; further, 80 percent of the executives say they are "supporting" their employees during this period, but only 46 percent of the employees agree (IBM 2020). The pandemic has further blurred the line between personal and professional growth, and unless organizations build capacity to meet both, this imbalance will remain.

The Question of Educational Purpose

Traumatic stress has hijacked corporate strategy. (IBM 2020: 5)

The discussion around traumatic stress is not just about COVID-19. The death of George Floyd and other race-related tragedies in 2020 triggered an intense social justice debate in the United States that exploded onto the streets. One may ask: What is the connection between these events and higher education? Schrum (2019) reminds us that in the 1950s and 1960s, the grand vision for universities was to be instruments of social change. In recent years, however, that vision has morphed into one that sees universities as training grounds for the private workforce. Students have become high-paying customers, interested only in purchasing the pathway toward gainful post-graduation employment. With skyrocketing tuition and a high rate of underemployment among recent college graduates, who can blame them?

The pandemic has offered us a critical moment to reflect on the desired outcome of higher education. Should job-ready skills be the sole or main focus of higher education or should higher education be more about preparing students to understand and solve larger social issues? Unless universities figure out a way to do both, the choice they make may be devastating for humanity. Education is a building block for both workforce preparedness and a civically conscious, fair, and equitable society.

Ideology aside, universities face an existential crisis. The *Wall Street Journal* reported that in the United States, over 80 percent of the 515 colleges surveyed were worried about net tuition revenue. On average, the *WSJ* predicted 15 percent lower enrollment, and an 18 percent drop in foreign students for the 2020–2021 academic year (Korn et al. 2020). The situation may be worse for minority students, who have been disproportionately affected by the pandemic (Dua et al. 2020). Students (and their parents) may reconsider the investment in tuition for a "degraded" virtual educational experience without the in-person benefits (Walsh 2020). The more elite universities may survive, but this could be the year of reckoning for the next rung of universities. One dire prediction (Walsh 2020) sees universities outside the top 50 becoming "shadow[s] of themselves" if they do not fully shut down.

Post-COVID-19

> [God] threw a pandemic at us at the exact same time as a tectonic shift in the way we will learn, work, and employ. Fasten your seatbelt. When we emerge from this corona crisis, we are going to be greeted with one of the most profound eras of Schumpeterian creative destruction ever, which this pandemic is both accelerating and disguising. (Thomas Friedman 2020)

The unusual intersection of the transformation of work with the pandemic has created what O'Driscoll (2020) calls a "figure-it-out" world as opposed to a "find-it-out world." A "find-it-out world" is one that relies on best practices and past experiences to solve a problem. A "figure-it-out" world is generative; it relies on experimentation, co-creation, improvisation, and adaptability. One needs to let go of established orthodoxies and paradigms and come up with new ones. Therefore, the pandemic is forcing a paradigmatic shift in how humans solve problems.

Reexamining the Fundamentals

Fixing the "broken" education system requires action, no doubt, but it also requires deep introspection. What is and what should be the mission of higher education? Most would agree that the goal of higher education should do more than simply churn out plug-and-play

employees equipped with the latest technical skills. Education should not just be about labor market readiness, but also about educating students on various aspects of life that have inherent value but are often difficult to define in economic terms (Teräs et al. 2020).

The question of mission is crucial to traditional institutions of higher education. If the current trend continues towards education for the sole purpose of gaining employment, students will find cheaper ways to earn the credentials they need for employment. For example, Google has begun offering prospective employees a six-month course that guarantees a job following completion (Omondi 2020). Amazon, Microsoft, and IBM have also entered the credential business. That may not be higher education in the traditional sense, but it is adequate in its skill-building for the labor market, much cheaper, and more accessible to everyone (Belkin 2020). For education to make sense, it must go back to its original mandate as an agent of the public good, not just private profit (Schultz 2020).

Organizations also need to examine their fundamental beliefs about their relationship with employees. The pandemic has thrown wide open the way organizations treat employees. Hamel and Zannini (2020: ix) assert that "the typical medium- or large-scale organization infantilizes employees, enforces dull conformity, and discourages entrepreneurship; it wedges people into narrow roles, stymies personal growth, and treats human beings as mere resources." McKinsey's survey on required post-pandemic capabilities found that the most important capabilities leaders are seeking for the future include leadership, resilience, and adaptability (Capozzi et al. 2020). There is increasing appreciation that employees are not merely a skill-stock in trade—not merely instruments of production (Hamel and Zanini 2020). Organizations need to consider the whole person, so teaching students about resilience is as important as teaching them about data science. Likewise, teaching and supporting employees in areas of well-being and personal growth is just as important as professional growth (Agrawal et al. 2020). Corporate universities can play a pivotal role in creating and curating content on skills and mindsets, not skills alone. Organizations need to change from demanding the most from employees (an instrumental mentality) to drawing the best from them (Csikszentmihalyi 2004). When employees bring the best version

of themselves to their work, organizational productivity, creativity, and success ensue. This new human-centric focus is "humanocracy" (Hamel and Zanini 2020).

Workforce Preparedness Is About the Entire Worker

There is no doubt that EdTech has become an important part of the educational equation for both traditional and corporate universities as a result of COVID-19. The situation is a welcome market opportunity, but unless a careful governance structure is set up, the choices of universities and organizations regarding EdTech could potentially create new dynamics of power and control, creating new inequities and inequalities among learners (Selwyn et al. 2019). While the role of EdTech in revolutionizing education is welcome and critical for the success of learning to go forward, universities and corporations must reflect deeply on balancing technological innovation and flexibility with ownership and control of lucrative learner data (Birch et al. 2020). EdTech is a means, not an answer, to the education problem (Teräs et al. 2020).

The question of the "mission" of education is a philosophical one. Universities need to recenter themselves as providers of education for both skills and the public good. Organizations need to consider their workforce, not as a cog in the hamster wheel of production, but as humans and important stakeholders whose positive energies are needed to fulfill the purpose of the organization in serving society (Csikszentmihalyi 2004).

Education for the Future

Albert Einstein reportedly said: "The problems that exist today cannot be solved by the level of thinking that created them" (cited in Prensky 2009). A paradigmatic shift, by definition, requires seeing from a different perspective. We need a serious reflection on what is considered higher education. Is it the century-old four-year college degree? If so, as the *Wall Street Journal* points out, it has moved from being a steppingstone to an albatross around the neck (Belkin 2020). In the United States, this often translates to a highly educated, debt-filled, and often underemployed or unemployed college graduate. It

is no wonder college enrollment dropped by 16 percent in 2020, and a 2019 Kaplan survey of 2,000 parents showed that 74 percent of them favored students going to a job straight after high school (Belkin 2020). Increasingly, colleges have become a rite of passage for the elite. Schultz (2020) equates it to luxury goods affordable by only a few. For universities to survive the inevitable shakeout (Korn et al. 2020), radical rethinking is required.

One area of rethinking higher education includes the measure of quality—defining what "good" looks like. Is a "good" college one with a low acceptance rate? Another dimension that needs rethinking is the front-loading of formal education. Education does not end when one earns a degree. A better measure of education would include a commitment to lifelong learning. If we live beyond 80, there should be many learning points along the way for one to refresh oneself with new skills (Thomas 2020). Over the course of a lifetime, the individual acquires a stack of skills, topping them along the way as and when required. Learning is the new pension (McGowan and Shipley 2020). According to Andrew Crisp, education could become a Netflix-type subscription service that is offered on-demand throughout one's life (Thomas 2020). Many institutions, including Columbia Business School and Harvard University, have already started offering such lifelong learning opportunities for their alumni.

Faculty reskilling will be critical as well. If the online or blended EdTech learning model is here to stay, faculty proficiency in teaching online and using EdTech will become a differentiator for many institutions. According to a 2019 Gallup survey, only one-third of faculty participants supported the use of educational technologies; that rate increased to 45 percent in 2020, when nearly all courses moved online. Many instructors wish for a return to traditional methods of teaching after the pandemic, which, if that happens, will amount to an opportunity lost. Instead, faculty should reskill and upskill in the latest tools of EdTech without compromising the pedagogical integrity of the online curriculum (Hodges et al. 2020).

Corporate universities will need to repurpose themselves as well. The pandemic has forced corporate universities to address education strategies that promote the "whole human," an approach with great potential:

> The students are exposed to what is most new by way of innovative technologies and techniques in organizations. The company engineers and executives are exposed to what is most enduring—civics, ethics, theories of justice, principles of democracy, notions of the public good, environmentalism, and how to lead a life of purpose. (Thomas Friedman 2020)

Thomas Friedman's (2020) argument is reflected in two recent developments in education that are worthy of note. In both cases, traditional universities, corporate universities, and EdTech are connected as partners, not just as consumers or providers. In one model, companies have begun to partner with universities to provide curriculum, instruction, technical tools, and support, thereby blending the academic world with real-life corporate problems (Stoll 2020). For example, Siemens partnered with Oakland University; Qualcomm, Caterpillar, and GE partnered with Virginia Tech. Not only do these universities provide a talent pipeline for these corporate partners, but it also changes the relationship with organizations from traditional grants, scholarships, and research–to a more connected and involved model. The development is not without critics, as some believe that direct corporate engagement with students may narrow the curriculum focus (Stoll 2020). Nevertheless, the partnership points to the blurring of lines between educators and employers (Friedman 2020). In November 2020, Microsoft and three universities in the United Kingdom announced an education partnership wherein students in these three universities would take tech-specific courses such as cloud computing, artificial intelligence, and data science offered by Microsoft. In addition, they also would have access to LinkedIn Learning, Microsoft's AI Business School, and technology learning courses, GitHub. Students will gain two accreditations, one from Microsoft and the other from their respective universities (Microsoft 2020). While some critics might describe these new partnerships as the colonization of the education system by EdTech, only time will reveal whether this shift will lead to the increased technologization of education, the humanization of technology, or both (Teräs et al. 2020).

What about physical campuses and classrooms, either in traditional or corporate universities? It is too soon to predict whether face-to-face education will permanently fade. Paradoxically, the longer the

pandemic continues, the greater students' desire to return to the campus grows. There will be more blended learning and online courses, but traditional classrooms will still be the primary choice of most students (Radha et al. 2020). The quad, the lecture halls, the dorm, the fraternity parties are "well-known totems of the quintessential college experience" and will not easily be forgotten (Dua et al. 2020: 8). Nor should they be. Casual encounters, conversations, and social interactions allow individuals to develop a complex web of relationships that, in turn, foster trust, kinship, and community (Tomasello 2000). In addition, as Baldwin (2020) points out, humans have not evolved to the extent that we can read people in an online context in the same manner as we do in a face-to-face context. Words only account for a maximum of 30 percent of interpersonal communication. The rest is nonverbal, making face-to-face the preferred mode of communication and learning, even with the most sophisticated computer technology (Baldwin 2020). Physical campuses are not likely to permanently disappear anytime soon.

Conclusion

The pandemic is an unprecedented event, unlike any other most have faced, leaving a lasting impact that we may not fully fathom. Yet, looking at it through a different lens, one can appreciate the force by which COVID-19 has forced humans to fundamentally examine and reimagine fundamental social practices and institutions—such as the workplace and higher education. Who would have forecast that nearly 70 percent of the workforce and nearly all the world's 1.5 billion students would go online in a matter of weeks (Brynjolfsson et al. 2020; Teräs et al. 2020)?

The pandemic is the catalyst creating a perfect storm for acceleration and evolution. Higher education is a stairway for all stakeholders: individuals who strive for growth and livelihood; organizations that desire the best talent with the best skills; and societies that seek to be inclusive, just, and equitable. Together, traditional universities, corporate universities, and EdTech have the responsibility of applying the lessons of 2020 to reframe discussions about higher education.

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